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United States Patent [19]

Lane et al.

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[54] **HIERARCHICAL MENU BAR SYSTEM
WITH DYNAMIC GRAPHICS AND TEXT
WINDOWS**

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10952

[21] Appl. No.: **613,527**

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Related U.S. Application Data

[63] Continuation of Ser. No. 155,464, Nov. 19, 1993, abandoned.

[51] Int. Cl.⁵ **G06F 3/00**

[52] U.S. Cl. **395/357; 395/353**

[58] Field of Search **395/326-358,**
395/806-807; 345/146, 123-125, 902, 117-120

[56] **References Cited**

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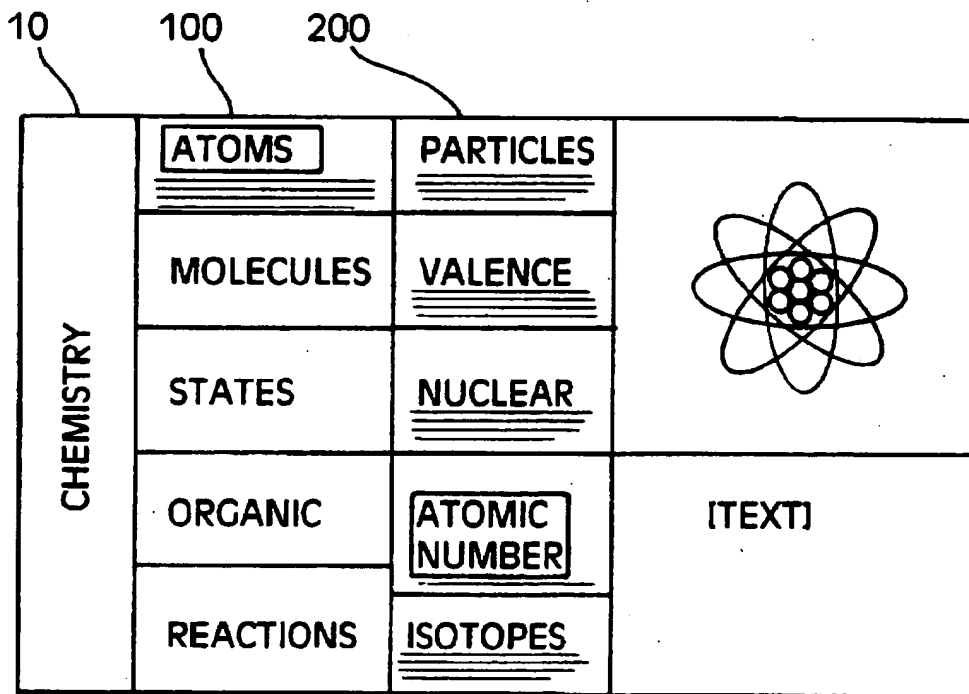
Primary Examiner—John E. Breene

[57] **ABSTRACT**

A data processor for managing a multilevel application wherein the data processor includes a display controller that creates a three-level menu window and a data window. The menu window includes at least two levels that each incorporate select commands associated with discrete subjects wherein menu commands are concurrently displayed on screen to provide historical access information. Menu commands are converted into display presentations where each level defines a greater degree of information detail on a given subject. The data display window for these presentations is further divided into windows for text and graphics.

The foregoing arrangement has been found to be exceptionally effective at providing educational or tutorial information access in an efficient manner.

2 Claims, 3 Drawing Sheets



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- [54] PROCESS CONTROL INTERFACE WITH
SIMULTANEOUSLY DISPLAYED THREE
LEVEL DYNAMIC MENU
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- [*] Notice: The portion of the term of this patent
subsequent to Jul. 7, 2004 has been
disclaimed.
- [21] Appl. No.: 50,925
- [22] Filed: May 15, 1987

Related U.S. Application Data

- [63] Continuation-in-part of Ser. No. 864,024, May 16,
1986, Pat. No. 4,805,089, which is a continuation-in-
part of Ser. No. 729,153, Apr. 30, 1985, Pat. No.
4,679,137.
- [51] Int. Cl.⁴ G06F 15/46
- [52] U.S. Cl. 364/188; 364/200;
340/706
- [58] Field of Search 364/551, 146, 188, 191,
364/192, 193, 171, 200 MS File; 340/706, 712,
707, 708, 709, 710, 711, 718

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Attorney, Agent, or Firm—Flehr, Hohbach, Test,
Albritton & Herbert

[57] ABSTRACT

A system and method for computer control of machine processes. The operator of the system selects and specifies process control parameters through the use of a three level dynamic menu. The first level of the menu is used to select a group of process parameters. The second and third menus together have the visual appearance of a set of index cards, the second menu forming tabs on the index cards, and the third menu comprising the set of process parameters listed on each index card. Each process parameter has a preassigned entry status: operator unalterable, operator alterable, forced operator entry, or single time forced entry (value must be entered only once when the process is run several times). The selected process cannot be run until values have been entered for all parameters having an entry status of forced operator entry or single time forced entry. Edit field parameters limit the operator's options to a predefined set of parameter values. Edit field parameters are also used to specify complicated parameter values having a multiplicity of subparameter values. The definition of each process can include a measurement data structure which defines measurement data to be collected during the running of the process. The measurement data to be collected is specified by specifying a set of data analysis tasks, and specifying the measurement data needed for each data analysis task. The measurement data structure includes definitions of the specified data analysis tasks and the measurements to be collected.

6 Claims, 27 Drawing Sheets

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